

CLAIMS

What is claimed is:

1. A method for distinguishing an animal:
 - (a) infected with wild-type Newcastle Disease Virus (NDV) or
 - (b) vaccinated with an unmodified mesogenic or lentogenic NDV strainof NDV; or
 - (c) not vaccinated with NDV, from an animal
 - (d) vaccinated with a vaccine comprising an infectious copy of an avian paramyxovirus at least partly derived from NDV obtainable by a process comprising: transfecting at least one cell with an avian-paramyxovirus cDNA comprising a nucleic acid sequence corresponding to the 5'-terminal end of the genome of avian paramyxovirus to generate an infectious copy of an avian paramyxovirus, wherein said infectious copy of the avian-paramyxovirus encodes one or more viral proteins having a modification relative to wild-type or an unmodified mesogenic or lentogenic NDV strain,said method comprising:
 - taking at least one sample from the animal; and
 - analyzing said at least one sample to determine the presence of antibodies directed against an epitope or marker expressed by wild-type or unmodified NDV, but not by said vaccine.
2. The method according to claim 1 wherein said antibodies are directed against an epitope on a hemagglutinin-neuraminidase or fusion protein of Newcastle Disease Virus.
3. The method according to claim 1, wherein the modification is in a viral nucleocapsid, phosphoprotein or large polymerase protein.
4. The method according to claim 1 wherein said animal is a chicken.

5. The method according to claim 2 wherein said animal is a chicken.
6. A diagnostic kit for use in a method according to claim 1, said diagnostic kit comprising an antigen for reacting with said antibodies, wherein said antigen comprises an epitope or marker expressed by wild-type or unmodified Newcastle Disease Virus, but not by the vaccine.
7. The diagnostic kit of claim 6, further comprising a vaccine specific antigen for reacting with said antibodies, wherein the vaccine specific antigen comprises an epitope expressed by the vaccine, but not the wild-type or unmodified Newcastle Disease Virus.
8. The diagnostic kit of claim 6, wherein said infectious copy of an avian-paramyxovirus further comprises a nucleic acid encoding a heterologous antigen and said vaccine specific antigen comprises an epitope of said heterologous antigen.
9. The method according to claim 1, wherein said Newcastle Disease Virus is a lentogenic virus.
10. The method according to claim 1, wherein said modification comprises a modification of a structural protein.
11. The method according to claim 10, wherein said modification comprises a modified protease cleavage site.
12. The method according to claim 11, wherein said cleavage site is a protease cleavage site of the fusion protein.
13. The method according to claim 10, wherein said modification comprises a

modified hemagglutinin-neuraminidase protein.

14. The method according to claim 10, wherein said modification comprises a modified matrix protein.

15. The method according to claim 1, wherein said infectious copy of an avian-paramyxovirus further comprises a nucleic acid encoding a heterologous antigen.

16. The method according to claim 15, wherein said heterologous antigen is derived from a poultry pathogen.